DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/2/2009 has been entered.

Status of Application, Amendments, And/Or Claims

The cancellation of claim 29 has been made of record.

Claims 16, 18 and 21-26 are pending and under examination.

Information Disclosure Statement

The Information Disclosure Statement (IDS) submitted on 6/9/2009 has been considered.

Response to Arguments

Claim Rejections - 35 USC § 102- *withdrawn*

The rejection of claim 29 under 35 U.S.C. 102(b) as being anticipated by Grabstein et al is withdrawn in view of Applicants' cancellation of claim 29.

Claim Rejections - 35 USC § 103-*maintained*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 16, 18 and 21-26 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Grabstein et al (US Patent No. 5,162,111) in view of Grzybowski et al (Int. J. Pharmaceutics 184: 179-187, 1999) and further in view of Sampathkumar (US Patent No. 4,804,530) for the reasons of record in pg. 6-10 of the office action mailed on 12/23/2008, and on page 2 of the advisory sent on 3/16/2009.

Applicant reiterates his arguments (page 6 of Response) that GM-CSF and G-CSF are different proteins and that clinical results achieved with GM-CSF would not be predictive. Applicant argues (page 5 of Response filed on 5/19/2009) that the deficiency of Grabstein et al and Grzybowski et al is not simply that these references do not teach treating periodontal disease or sinusitis, rather neither references alone or in combination teach treating localized bacterial infection by locally administering a therapeutically effective amount of a GM-CSF polypeptide. Applicant argues that the reference Schneider and Dschner (1998), referred in Grzybowski et al, only establishes

the use of GM-CSF for treating bacterial or fungal infection as a complementary drug for systemic treatment. Applicant argues that the instantly claimed methods achieve highly effective clinical results (page 6 of Response) and agues that Examples 1 and 2 of the specification provides such support. Applicant argues that there are advantages to the local administered of some drug as compare to systemic adminstration and conversely systemic administration may be a choice of treatment where local adminstration of a drug is not accessable.

Applicant's arguments have been fully considered but they are not persuasive for the reasons set forth on pages 6-10 of the office action mailed on 12/23/2008 and as discussed below. The reference Grabstein et al teaches a composition comprising GM-CSF for the treatment of bacterial infection (col. 11, lines 50+, Example 1 and claim 1) and teaches administering a recombinant GM-CSF to a subject suffering from bacterial infection in dosages of about 0.05 to 500 ug/Kg of body wt of the subject per day (col. 5, lines18+ and Examples 1-2, and 4). Therefore, the role of GM-CSF for treating a bacterial infection is well established. However, the reference Grabsetein does not teach a composition comprising GM-CSF for treating a local bacterial infection. The reference Grzybowski et al does teach preparing dressings containing GM-CSF or G-CSF which is suitable for local administration (page 180, Materials and methods). Therefore one of the ordinary skill in the art would be able to prepare a composition comprising GM-CSF suitable for the local administration, including treating a local bacterial infection as periodontitis as taught by Sampathkumar. In response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Additionally, regarding applicants' arguments that presently claimed methods achieve highly effective clinical results have been fully considered but they are not persuasive because both the Examples 1 and 2 show that GM-CSF when administered locally treats periodontitis. The speicification does disclose any data for treating a local bacterial infection by GM-CSF which would make one of ordinary skill in the art to consider being any more effective than the combined teachings of Grabstein et al and Grzybowski et al. Applicants who allege they discovered the source of a problem must provide evidence substantiating the allegation, either by way of affidavits or declarations, or by way of a clear and persuasive assertion in the specification. In re Wiseman, 596 F.2d 1019, 201 USPQ 658 (CCPA 1979) (unsubstantiated statement of counsel was insufficient to show appellants discovered source of the problem); In re Kaslow, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir.1983).

Conclusion

Claims 16, 18 and 21-26 are rejected.

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued

examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.Any inquiry concerning this communication or earlier communications from the examiner should be directed to GYAN CHANDRA whose telephone number is (571)272-2922. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol can be reached on (571) 272-0835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gyan Chandra/
Examiner, Art Unit 1646

/Robert Landsman/
Primary Examiner, Art Unit 1647